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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,907	07/31/2003	Edward Litwinski	38190/267786	9632

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EXAMINER	
SAETHER, FLEMMING	
ART UNIT	**PAPER NUMBER**
3677	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/631,907	LITWINSKI ET AL.	
	Examiner	Art Unit	
	Flemming Saether	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19,21,30,31 and 33-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19,21,30,31 and 33-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19, 30, 31 and 33-46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 19 and 38, since the disclosure only provides an example where the material is an aluminum alloy as noted by applicant's remarks, the other materials: aluminum, titanium and titanium alloy must still be considered new matter when "consisting essentially of".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 30, 31, 38, 39, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japan reference JP 10195567A (Japan '567). In the translated abstract and use of the Japan '567 reference is disclosed an a rivet manufactured to include a matrix having a grain size of 5 micrometers or less which is within the claimed

range. Japan further discloses the material to include aluminum and its combination with other materials would make an aluminum alloy. The stir welding is a product-by-process limitation wherein it is only the final product considered for patentability. In regards to claim 38, the material not having the grain size of 5 micrometers or less is such a small percentage of the overall volume (38%) the structure would continue to "consist *essentially* of" the grain size of 5 micrometers also, the small amount of material which does not fall within the claimed range is "*about*" within the range. As discussed further below, "consist essentially of" is to be construed as equivalent to "comprising". See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355. Furthermore, the preamble uses "comprising" thus not limiting the rivet to the claimed 3 to 5 micrometers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 21, 33-37, 40 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '567 as applied to claim 19 and 38 above, and further in view of Briles (US 4,159,666). The translation of Japan '567 does not disclose the specific configuration of the rivet nor the rivet including titanium. Briles discloses a rivet having a head as well as the equivalence of aluminum and titanium in rivets (column 3, lines 51-56). At the time the invention was made, it would have been obvious for one of

ordinary skill in the art to form the rivet of Japan '567 as having a head and of titanium as disclosed in Briles such that the rivet would conform with the substrates to prevent the formation of gaps at the head, as discussed in Briles. The particular aluminum alloy is known and would have been recognized to use depending upon the particular application.

Response to Remarks

In regards to the 112 first paragraph, new matter rejection applied against claim 19, applicant argues that there is disclosure of an example wherein the material is an aluminum alloy and as such is not new matter. In response, the examiner agrees that there is disclosure for aluminum alloy in one of the examples but, applicant does not address the other materials thus they are still considered new matter.

In regards to the other 112 first paragraph, new matter rejection applied against claim 38, the rejection has been withdrawn. Applicant has pointed to an example which uses the "consists essentially of" language in referring to the gain size.

In response to the prior art rejection applied against claim 19, applicant argues that the material of the Japan reference (Japan '567) cannot anticipate the claims since the material of the Japan '567 includes non-metal particles which are not homogenous and therefore cannot meet the definition of an "alloy". In response, the examiner disagrees because the applicant has not show that Japan '567 does not meet the

definition as an "alloy". Indeed, as noted by applicant, Japan '567 looks to form a material is "uniform" which would be analogous to the "homogeneous mixture" required of the definition and certainly the mixture of all the materials of Japan '567 would alternatively meet the alternative definition as a "solid solution".

Furthermore, the claims only require the material to "consist essentially of" of an aluminum alloy so even assuming that the entirety of the material is not an "aluminum alloy" the "essentially of" leaves open the inclusion of other material(s).

Also, as noted above, the preamble only requires the rivet to be "comprising" of a head and shank to "consist essentially of ... an aluminum alloy" thus the material of the shank which applicant argues as not an aluminum alloy could alternatively be considered part of the rivet which is not "comprising" the aluminum alloy.

In regards to the prior art rejection applied against claim 38, applicant argues, that contrary to the rejection, the other material not having a grain size of 5 microns or less is 38% and therefore, the material as a whole cannot be meet the limitation as to "consist essentially of" a grain size of 5 microns or less. In response, while the examiner understand applicant's position, the examiner maintains that even at 38% other material Japan '567 continues to meet the limitation as to "consist essentially of" a grain size of 5 microns since the applicant has not shown that it materially effects the basic and novel characteristics of the invention. The phrase "consisting essentially of" limits the claim to the specified material "and those that do not materially affect the basic and novel characteristic(s)". *In re Herz,* 537 F.2d 549, 551-52. 190 USPQ 461. 463

(CCPA 1976) (emphasis in original) and applicant has the burden of showing that the introduction of additional components would materially change the characteristics of applicants' invention. *In re Lajarte*, 337 F.2d 870. 143 USPQ 256 (CCPA 1964). The mere statement that 38% of the volume of material is outside of the claimed range is insufficient to show that it changes the material characteristics.

Furthermore, as noted above, the preamble only requires the rivet to be "comprising" of a head and shank to "consist essentially of ... a grain size between about 3 microns and 5 microns" thus the material of the shank which applicant argues as not an having the grain size between about 3 microns and 5 microns could alternatively be considered part of the rivet which as not "comprising" the defined grain size.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Flemming Saether
Primary Examiner
Art Unit 3677